In the claims:

1.   (previously presented) A processor-based method for determining whether to deliver or to withhold a cardiac rhythm management therapy in response to the occurrence of atrial and ventricular events, comprising:

sensing cardiac depolarization events;

determining a cardiac grammar based on the sensed events for a plurality of cardiac cycles;

applying a priority-rule based logic set to the cardiac grammar to determine if each of at least one clause that make up a plurality of discrete rules of said priority-rule based logic set is firing; and

withholding a cardiac rhythm management therapy or delivering the cardiac rhythm management therapy based on a highest priority rule of the priority-rule based logic set for which each of said at least one clause is firing, wherein said highest priority rule continues to fire until one or more clauses of said highest priority rule are not satisfied for a predetermined sequence of R-R intervals..

2.   (original) A method according to claim 1, wherein the cardiac depolarization events comprise a plurality of atrial-based events and a plurality of ventricular-based events.

3.   (original) A method according to claim 1, wherein the cardiac rhythm management therapy includes at least a one of:

an atrial anti-arrhythmia-only therapy;

a ventricular anti-arrhythmia-only therapy;

a cardioversion therapy;

a defibrillation therapy;

an anti-tachycardia pacing therapy;

an anti-arrhythmia therapy.

4.   (original) A method according to claim 3, wherein the anti-arrhythmia
therapy comprises a one of:
        a nerve stimulation therapy; or
        a drug administration therapy.

5.   (original) A method according to claim 3, wherein the anti-tachycardia
pacing therapy further comprises:
        a plurality of anti-tachycardia pacing therapies, wherein each one of said
plurality of anti-tachycardia pacing therapies having a different operating
parameter than the other of said anti-tachycardia pacing therapies

6.   (original) A method according to claim 3, wherein the defibrillation
therapy further comprises:
        a plurality of defibrillation therapies, wherein each of said plurality of
defibrillation therapies is programmed to deliver a different amount of
defibrillation energy.

7.   (original) A method according to claim 3, wherein the cardioversion
therapy further comprises:
        a plurality of cardioversion therapies, wherein each of said plurality of
cardioversion therapies is programmed to deliver a different amount of
cardioversion energy.

8.   (original) A method according to claim 6, further comprising:
        in the event that a first defibrillation therapy does not terminate an
arrhythmia, reconfirming the presence of an arrhythmia wherein defibrillation is
an appropriate anti-arrhythmia therapy; and
        delivering an increased-energy defibrillation therapy, wherein said
increased-energy defibrillation therapy comprises a one of the plurality of
defibrillation therapies.

9.   (previously presented) A method according to claim 7, further comprising:

in the event that a first cardioversion therapy does not terminate an arrhythmia, reconfirming the presence of an arrhythmia wherein cardioversion is an appropriate anti-arrhythmia therapy; and

delivering an increased-energy cardioversion therapy, wherein said increased-energy cardioversion therapy comprises a one of the plurality of cardioversion therapies.

10.   (previously presented) A computer readable media for storing instructions for determining whether to deliver or to withhold a cardiac rhythm management therapy in response to the occurrence of atrial and ventricular events, comprising:

instructions encoded into a computer readable media for sensing cardiac depolarization events;

instructions encoded into the computer readable media for determining a cardiac grammar based on the sensed events for a plurality of cardiac cycles;

instructions encoded into the computer readable media for applying a priority-rule based logic set to the cardiac grammar to determine if each of at least one clause that make up a plurality of discrete rules of said priority-rule based logic set is firing; and

instructions encoded into the computer readable media for withholding a cardiac rhythm management therapy or delivering the cardiac rhythm management therapy based on a highest priority rule of the priority-rule based logic set for which each of said at least one clause is firing, wherein said highest priority rule continues to fire until one or more clauses of said highest priority rule are not satisfied for a predetermined sequence of R-R intervals.

11.　(original) A medium according to claim 10, wherein the cardiac depolarization events comprise a plurality of atrial-based events and a plurality of ventricular-based events.

12.　(original) A medium according to claim 10, wherein the cardiac rhythm management therapy includes at least a one of:

　　　an atrial anti-arrhythmia-only therapy;

　　　a ventricular anti-arrhythmia-only therapy;

　　　a cardioversion therapy;

　　　a defibrillation therapy;

　　　an anti-tachycardia pacing therapy;

　　　an anti-arrhythmia therapy.

13.　(previously presented) A medium according to claim 12, wherein the anti-arrhythmia therapy comprises a one of a nerve stimulation therapy and a drug administration therapy.

14.　(original) A medium according to claim 12, wherein the anti-tachycardia pacing therapy further comprises:

　　　a plurality of anti-tachycardia pacing therapies, wherein each one of said plurality of anti-tachycardia pacing therapies having a different operating parameter than the other of said anti-tachycardia pacing therapies.

15.　(previously presented) A system for determining whether to deliver or to withhold a cardiac rhythm management therapy in response to the occurrence of atrial and ventricular events, comprising:

　　　means for sensing cardiac depolarization events;

　　　means for determining a cardiac grammar based on the sensed events for a plurality of cardiac cycles;

means for applying a priority-rule based logic set to the cardiac grammar to determine if each of at least one clause that make up a plurality of discrete rules of said priority-rule based logic set is firing; and

means for withholding a cardiac rhythm management therapy or delivering the cardiac rhythm management therapy based on a highest priority rule of the priority-rule based logic set for which each of said at least one clause is firing, wherein said highest priority rule continues to fire until one or more clauses of said highest priority rule are not satisfied for a predetermined sequence of R-R intervals.

16.   (original) A system according to claim 15, wherein the cardiac depolarization events comprise a plurality of atrial-based events and a plurality of ventricular-based events.

17.   (original) A system according to claim 15, wherein the cardiac rhythm management therapy includes at least a one of:

 an atrial anti-arrhythmia-only therapy;

 a ventricular anti-arrhythmia-only therapy;

 a cardioversion therapy;

 a defibrillation therapy;

 an anti-tachycardia pacing therapy;

 an anti-arrhythmia therapy.

18.   (previously presented) A system according to claim 17, wherein the anti-arrhythmia therapy comprises a one of a nerve stimulation therapy and a drug administration therapy.

19.   (original) A system according to claim 17, wherein the anti-tachycardia pacing therapy further comprises a plurality of anti-tachycardia pacing therapies, wherein each one of said plurality of anti-tachycardia pacing therapies having a different operating parameter than the other of said anti-tachycardia pacing therapies.